

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

East Fork Tebo Creek and Elm Branch

Water Body ID: 1282 and 1283

Water Body Segment at a Glance:

County:	Henry
Nearby City:	Windsor
Length:	
<i>E. Fk. Tebo Cr.:</i>	14.5 miles
<i>Elm Branch:</i>	3.0 miles
Pollutant:	Low dissolved oxygen
Source:	
<i>E. Fk. Tebo Cr.:</i>	Windsor SW Wastewater Treatment Plant
<i>Elm Branch:</i>	Unknown



State Map Showing Location of Watershed

Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm

Other TMDLs:

A TMDL for pH was approved by the U.S. Environmental Protection Agency on July 24, 2006. The TMDL and associated documents can be found on the department's website at dnr.mo.gov/env/wpp/tmdl/1282-e-fk-tebo-ck-record.htm

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. East Fork Tebo Creek and Elm Branch are impaired due to exceedances of water quality criteria for the protection of aquatic life.

Designated uses of East Fork Tebo Creek and Elm Branch

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

Designated use that is impaired

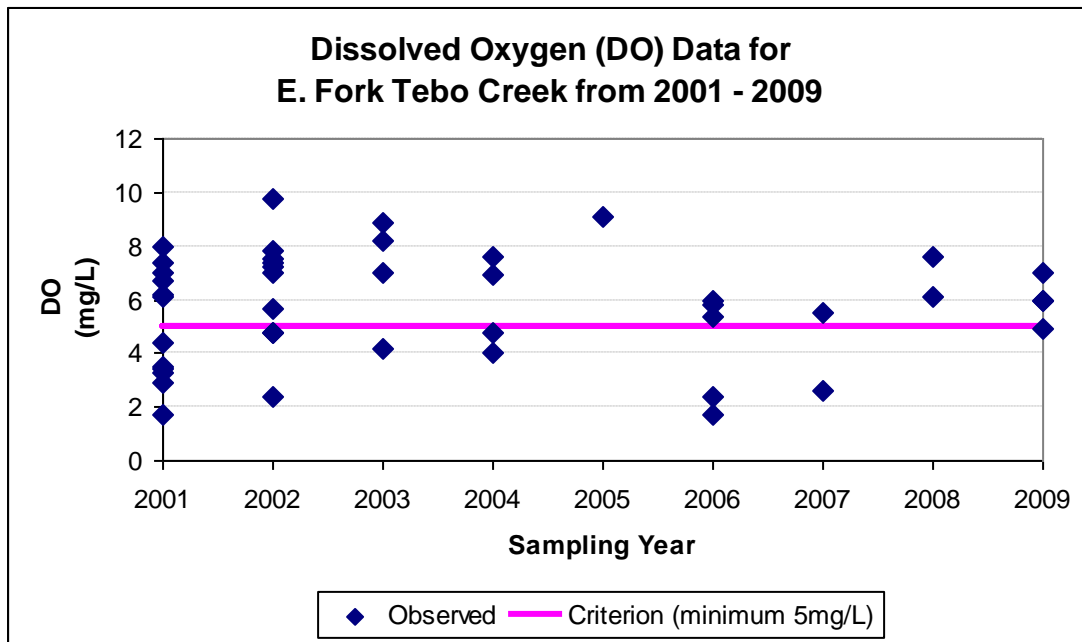
- Warm Water Habitat (WWH)

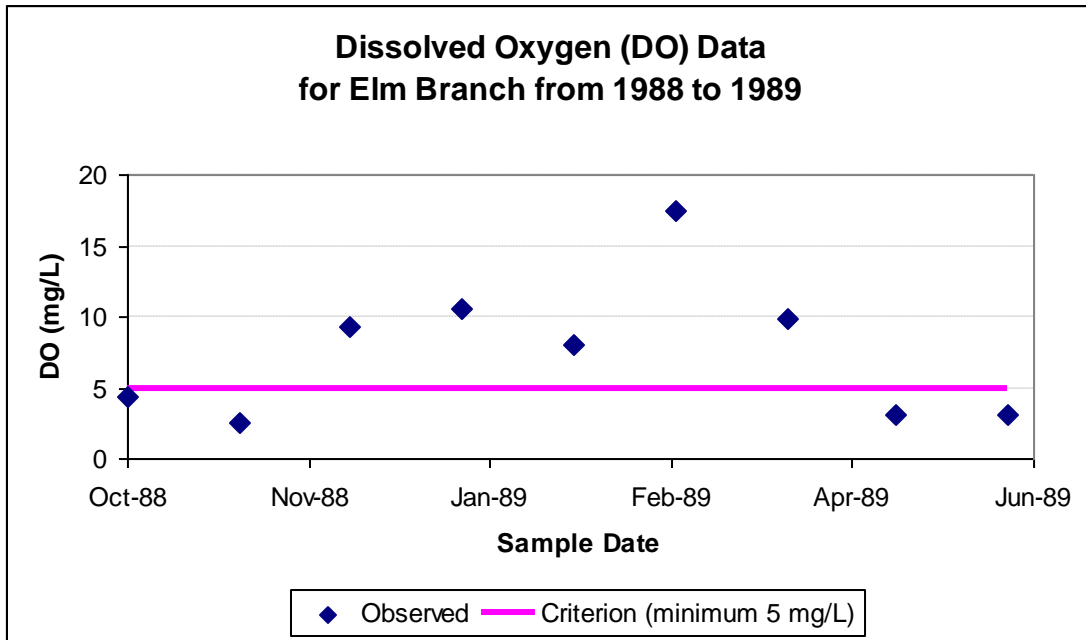
Criteria that apply

The dissolved oxygen criterion applicable to both East Fork Tebo Creek and Elm Branch is found in Table A of Missouri's Water Quality Standards at 10 CSR 20.7.031. Table A states that the minimum allowable dissolved oxygen concentration for the protection of aquatic life in warm water habitats is a minimum 5 milligrams per liter (mg/L).

Assessment and water quality data

Dissolved oxygen is important as many aquatic organisms require high levels of oxygen to survive and water quality conditions in these creeks appear to not be protective of aquatic life. For dissolved oxygen, if more than 10 percent of measurements in a water body fail to meet the water quality criterion that water body is judged to be impaired. In the case of Elm Branch, the dissolved oxygen impairment is based on data gathered by the U.S. Geological Survey in 1988-89. Four of nine samples (44 percent) did not meet the water quality criterion. It is not known what is causing the dissolved oxygen to be low. In East Fork Tebo Creek, the dissolved oxygen impairment was based on data collected by the department from 2001-09. During that time, 13 of 23 samples (56 percent) did not meet the criterion of 5 mg/L. These samples were taken 0.8 mile below the Windsor Southwest Wastewater Treatment Plant, or WWTP, which is believed to be causing the DO to be low.





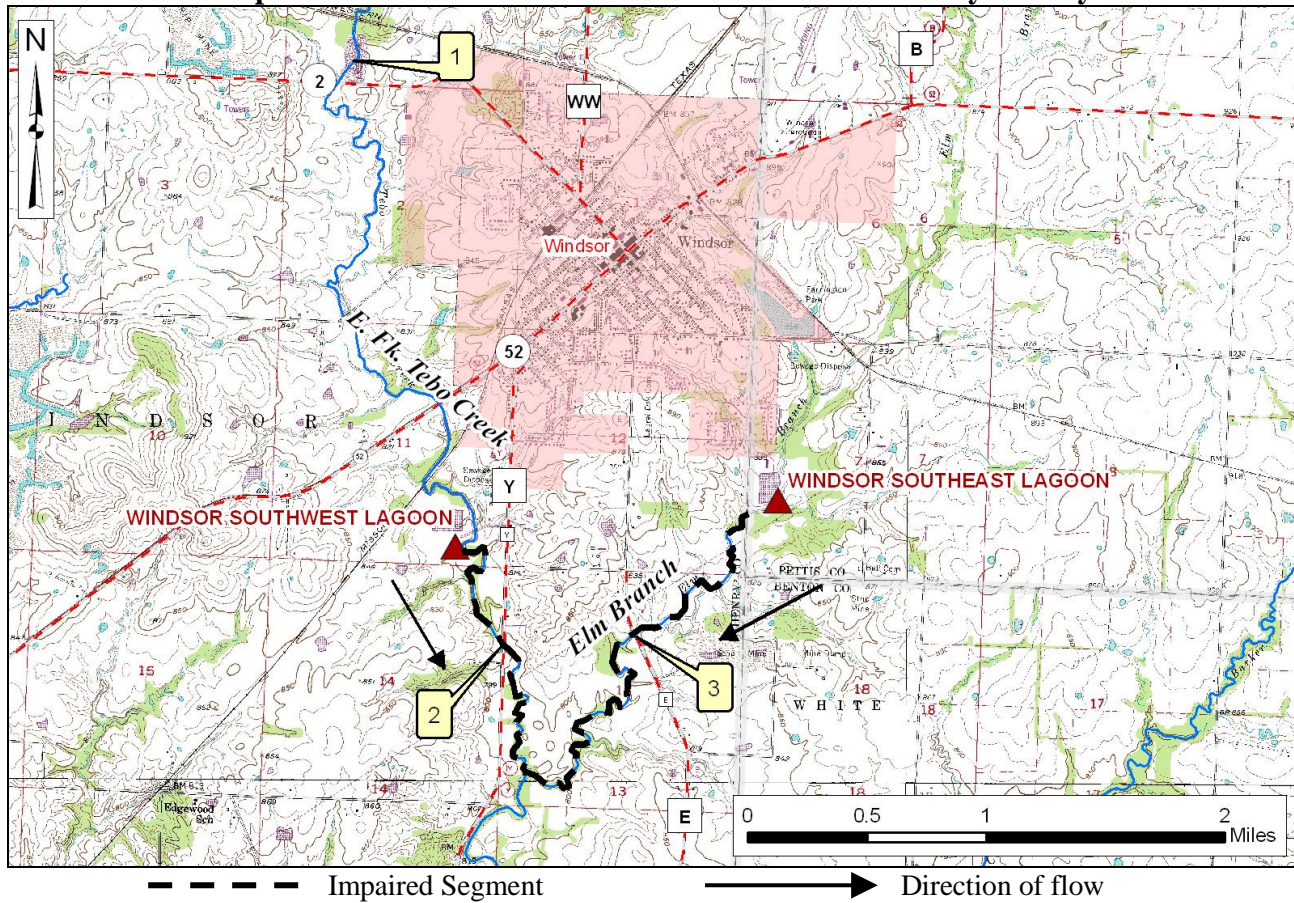
TMDLs for East Fork Tebo Creek and Elm Branch

The East Fork Tebo Creek and Elm Branch TMDLs will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, these TMDLs will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

For more information call or write:

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Email: TMDL@dnr.mo.gov
Program Home Page: dnr.mo.gov/env/wpp/index.html

Map of East Fork Tebo Creek and Elm Branch in Henry County



Sample Sites

- 1 – E. Fk. Tebo Cr. 0.1 mi. north of State Highway 2
- 2 – E. Fk. Tebo Cr. at Indiana St (Highway Y)
- 3 – Elm Br. at Highway E